

**A NEW SPECIES OF *PSEUDOTAXUS* CHENG (TAXACEAE) FROM CHINA**

John Silba\*

198 W. Hoffman Ave., Lindenhurst, New York 11757 U.S.A.

**ABSTRACT**

The genus *Pseudotaxus* was first described from eastern China in 1947 based on specimens deposited in the Nanjing Botanical Institute herbarium. It seems that very little herbarium material of this genus has been distributed to any herbaria outside of mainland China. In fact, this author could only find duplicate material of the type collection at the Harvard University Herbaria. An examination of material from western and southern China by this author while he was in China in 1994 has revealed a new species totally different in leaf morphology from the eastern populations.

**KEY WORDS:** Taxaceae, *Pseudotaxus*, China, systematics

The type species of this genus, *Pseudotaxus chienii* (Cheng) Cheng was described from a few specimens collected from Chekiang (Zhejiang) near Lungtsuan. In the Chekiang specimens the leaves are distinctly linear, oblong, and in fact look similar to a typical *Taxus* L. species. In sharp contrast, the leaf shape of all other specimens of *Pseudotaxus* native in regions of China other than Chekiang have a distinctly oval leaf, also the leaf width is very broad, and in fact the western populations seem to resemble *Podocarpus brassii* Pilg. (Podocarpaceae) in general leaf form.

In the literature (Cheng & Fu 1978), have reported the genus *Pseudotaxus* as occurring naturally in Chekiang, Jiangxi, Hunan, Kwangtung, and Kwangsi to 1000 m elevation. Other reports, such as a local listing by a commercial seed company in Sichuan, Sichuan Seed Company in southwest Sichuan suggest it may also be native in southern Sichuan. A recent study of the embryology of *Pseudotaxus* from three separate populations done by Cheng & Wang (1978) included comparisons of material from Chekiang (Lungchuan County), Kiangsi (Ching-kiang Mountains), and Kwangsi (Sze-ming Mountains).

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\*Adjunct Professor, Department of Horticulture, Farmingdale University, Farmingdale, New York 11735 U.S.A.



Figure 1. Type specimen of *Taxus chienii* (GH).



Figure 2. Specimen of *Taxus chienii* (GH).





Figure 4. Holotype of *Pseudotaxus liana* (PE).

**PSEUDOTAXUS LIANA** Silba, *species nova*. TYPE: CHINA. Guangxi: Lingui County, *L.Q. Cheng* 94669 (HOLOTYPE: PE).

Arbor ad 4 m alta; species affinis *Podocarpus brassii* Pilg. ab illa differt foliis ovata vel ovoideo-oblongis, foliis ad 2.8 cm longis et 4.0-4.5 mm latis, scorteus, apice acuminatis. Seminibus 4 mm latis, ovoideis, bene distinguitur.

This species is distinguished by its broadly oval or ovate-oblong leaves, 1.3-2.8 mm long and mostly 3.5-4.5 mm wide, the leaves somewhat warty on the upper surface like *Prumnopitys harnsiana* (Podocarpaceae) from Venezuela. The leaves are very thick and leathery like *Torreya* sp. (Taxaceae) with a distinct recurved margin, the leaf apex being abruptly narrowed to a short acuminate spine. The seeds are ovoid and at least 4 mm in diameter with the receptacle (dried) on the herbarium sheet.

This species is named in honor of Dr. Nan Li, former Doctoral student of Dr. L.K. Fu (PE) and now at Fairy Lake Botanical Garden in Shenzhen. It was the author's pleasure to meet Mrs. Li in Beijing in August of 1994.

*Pseudotaxus liana* occurs in south and western China, and does not occur in Chekiang. This species does not appear to be in cultivation outside of mainland China.

In contrast, *Pseudotaxus chienii* with its linear leaves which are non-leathery, occurs only in Chekiang. It is cultivated at the Nanjing Botanical Garden and at the Arnold Arboretum in the U.S.A. The leaves of *P. chienii* are very narrow, usually 1.5-2.0 mm wide.

Specimens examined: CHINA. Guangxi: Lingui County, April 1953, *L.Q. Cheng* 94669 (type) [leaves short and very broad, 12.5-16.0 mm long by 4 mm wide]. Hunan: *sine loc.*, 625 m, *Chinese coll.* 352 (PE) [sterile collection]; *sine loc.*, *Chinese coll.* 159 (PE) [leaves *Torreya*-like, leaves at least 3 mm broad, margin recurved, leaf apex acuminate with a spine]; *sine loc.*, 1040 m, *Chinese coll.* 432 (PE) [sterile, leaf margin distinctly recurved]. Jiangxi: Lushan Botanical Garden, Lushan, cultivated, *Shanghai Bot. Gard. Staff s.n.* (SG); Jing Gang Mountain, October 1965, *Ning Ying, et al.* 651233 (PE) [leaves somewhat warty on upper surface like *Prumnopitys harnsiana* of Venezuela]. Kiangsi: *sine loc.*, 1965, *Chinese coll.* 651223 (PE) [sterile, leaves 3-4 mm wide or more, leathery, *Torreya*-like]; *sine loc.*, 850 m altitude, *Chinese coll.* 2668 (PE) [a plant 4 m tall, 8 cm d.b.h., sterile].

#### **PSEUDOTAXUS CHIENII** (Cheng) Cheng

In the type description, Cheng (1934) describes the species from Chekiang as being a shrub 2-4 m tall, with linear leaves 15-25 mm long, petioles 1-2 mm long, and broadly ovoid seeds.

Geographically, the flora of Chekiang (Zhejiang) seems to be very different from the flora of western China. Other gymnosperm genera that have separate species in Chekiang that are distinct from species in western China include the genera *Torreya*, *Abies*, *Pseudotsuga*, and *Podocarpus*. Notably in *Torreya jackii*, which is a very

distinct species and is restricted to eastern China, with other *Torreya* species occurring in western China.

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